IN THE CLAIMS:

1. (Currently Amended) A relay device among a plurality of relay devices belonging to a single group or divided into two or more groups comprising:

a periodic transmitter periodically transmitting a control packet including a device identifier of the device itself, a weight indicating a degree of communication load to be accepted, and a preference indicating an order within a same group;

a device monitoring portion receiving a control packet including a device identifier, a weight indicating a degree of communication load to be accepted, and a preference indicating an order within a same group of another device, and registering the device identifier, the weight, and the preference received, in a group table in a mutually associated manner ~~for monitoring states of other relay devices belonging to the same group; and~~

~~a load balancing receiver for load balancing receiving packets with the other relay devices of for providing redundancy based on the states of the other relay devices;~~

a relaying identifier setting portion determining at a predetermined timing a packet identifier to be relayed based on the preference registered by the device monitoring portion in the group table as well as the preference of the device of its own, and the weight registered in the group table as well as the weight of the device itself; and

a relaying control portion relaying a packet of the packet identifier determined by the relaying identifier setting portion and discarding a packet other than the packet identifier.

2-11 (Cancelled)

12. (New) The relay device of claim 1, wherein the relaying identifier setting portion determines a preference order by sorting the preference registered in the group table and the preference of

the device itself, and determines a packet identifier to be relayed so that the remainder obtained by dividing the preference order with a total of the weight registered in the group table and the weight of the device itself ranges from a sum of a total of the weights of the devices having the preferences, registered in the group table, higher than the preference of the device itself plus 1 to a sum of a total of the weights of the devices having the preferences higher than the preference of the device itself plus the weight of the device itself.

13. (New) The relay device of claim 1, wherein the predetermined timing comprises a timing when the control packet is received by the device monitoring portion, or a timing provided at a fixed period based on a timer.